The SGIP does not develop interoperability standards. Rather, the SGIP acts as the central coordination point, providing guidance in identifying what work is needed and who should do it.

Smart Grid Interoperability Panel

A NEW, OPEN FORUM FOR STANDARDS COLLABORATION

THE BEGINNING

In the Energy Independence and Security Act of 2007 (EISA), the U.S. Congress established the development of a "smart" electric power grid as a national policy goal.

Essential components of the Smart Grid, as conceived in the EISA legislation, include:

- standards
- an information architecture
- a cybersecurity strategy
- a framework for testing and certification

Initiated by the National Institute of Standards and Technology (NIST), the Smart Grid Interoperability Panel (SGIP) plays a leadership role in facilitating and developing these components and in realizing the national policy for the transformation of the power system to the Smart Grid.

Building an advanced electric power system that enables two-way flows of energy and information, promotes efficiency, and enables growing use of solar, wind, and other renewable energy sources is vital to our nation's energy and economic future. Ensuring that this nationwide energy infrastructure—the Smart Grid—works seamlessly, reliably, and securely motivated the launch of a new coordination organization… the SGIP.

Established in late 2009, the SGIP is a public-private partnership dedicated to the interoperability of Smart Grid devices and systems—from home appliances to transmission substations to wind farms and other bulk power generators.

Membership is free and open to all organizations interested in achieving the Smart Grid vision.

ROLES AND FUNCTIONS

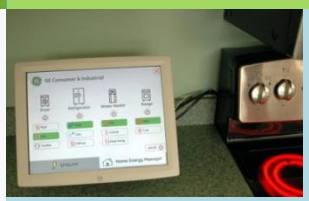
The SGIP identifies and addresses standardization priorities. The starting point for this activity is the *NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 1.0,* which was issued in January 2010.

The report contains an initial list of standards, a preliminary cyber security strategy and other elements of a framework.

The panel:

- identifies standards-related gaps and forms action plans to resolve these gaps
- assesses changes in Smart Grid-related technologies and associated requirements for standards
- coordinates with standards setting organizations (SSOs) to support timely availability of needed Smart Grid standards.

THE SGIP STRUCTURE



Governing Board | SGIP Officers | NIST

SGIP Administrator

SGIP Membership

- Standing Committees & Working Groups
  - Test & Certification (SGTCC)
  - Architecture (SGAC)
  - Cyber Security Working Group (CSWG)
- Coordination Functions
  - Program Management Office (PMO)
- Priority Action Plan (PAP) Teams
  - PAP 1
  - PAP 2
  - PAP 3
  - PAP …
- Domain Expert Working Groups
  - H2G
  - TnD
  - B2G
  - I2G
  - BnP
  - Pev2G

TECHNICAL ACTIVITIES

Given the complexity and urgency of its mission, the SGIP has several priority-specific committees and working groups.

Smart Grid Architecture Committee (SGAC): Maintains a conceptual reference model for the Smart Grid and develops corresponding high-level architectural principles and requirements.

Smart Grid Testing and Certification Committee (SGTCC): Creates and maintains the necessary framework for compliance, interoperability and cybersecurity testing and certification for recommended Smart Grid standards.

Cyber Security Working Group (CSWG): Identifies and analyzes security requirements and develops a risk mitigation strategy to ensure the security and integrity of the Smart Grid.

Priority Action Plans (PAPs): Currently totaling 16, PAPs address specific standards-related gaps and issues for which resolution is most urgently needed. New PAPs are added as necessary.

Domain Expert Working Groups (DEWGs): Numbering six, DEWGs perform analyses and provide expertise in specific application domains. Current DEWGs are:

- Transmission and Distribution
- Building to Grid
- Industry to Grid
- Home to Grid
- Business and Policy
- Vehicle to Grid

SGIP LEADERSHIP

The SGIP is led by three core teams: NIST, plenary officers and a governing board. The governing board prioritizes the work of the SGIP and consults regularly with organizations involved in standardization efforts. The board is comprised of elected representatives from all stakeholder categories, at-large members and ex-officio members, including the NIST national coordinator for Smart Grid interoperability.

SGIP MEMBERSHIP

Membership is by organization, with one vote per *participating* member. However, the number of individual representatives who engage in SGIP technical activities is not limited. Membership is divided among 22 stakeholder categories covering residential, commercial, and industrial consumers; appliance, consumer electronics, and automation vendors; electric utilities; renewable power producers; SSOs; state regulators and other Smart Grid participants.

The SGIP consists of more than 570 member organizations with almost 1,700 individual representatives engaged in SGIP activities.

Learn more and get involved. SGIPweb.org.
Questions? Please email SGIP.Administrator@enernex.com